

(12) UK Patent Application (19) GB (11) 2 363 077 (13) A

(43) Date of Printing by UK Office 12.12.2001

(21) Application No 0122952.5

(22) Date of Filing 25.02.2000

(30) Priority Data

(31) 9904373 (32) 25.02.1999 (33) GB

(86) International Application Data
PCT/GB00/00682 En 25.02.2000

(87) International Publication Data
WO00/49957 En 31.08.2000

(51) INT CL⁷

A61B 18/18 // A61N 5/04 , H01Q 19/09

(52) UK CL (Edition S)

A5R RHFR

H1Q QCX

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(58) Field of Search by ISA

INT CL⁷ A61B

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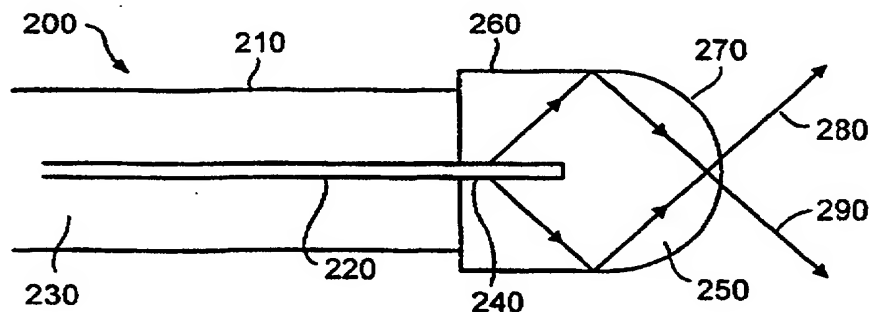
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(54) Abstract Title

Radiation applicator

(57) Radiation applicators comprise an elongate device having an antenna (240, 340) at their tip for coupling radiation into biological tissue and a dielectric body (250, 350) surrounding the antenna so as to encompass substantially the whole of the near-field region of the antenna and/or to enhance transmission of radiation in the forward direction. The body (250, 350) may be cylindrical with the antenna (240, 340) along its axis. The antenna may be $\lambda/2$ in length and $\lambda/2$ in radius. The tip (270) of the antenna (240) may be rounded hemispherical with radius $\lambda/2$ to enhance forward transmission of radiation. The dielectric constant (ϵ) of the body (250, 350) is as high as possible to reduce its diameter at a desired operating frequency but may be matched to the surrounding tissue by another layer of dielectric material (380) with a value (ϵ) intermediate that of the core (360) of the body (350) and the tissue.



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